

Appln. No. 10/000,156
Docket No. 14XZ00133/GEM-0205

REMARKS / ARGUMENTS

Status of Claims

Claims 1-73 are pending in the application. Claims 1-11 and 31-46 and 68-73 stand rejected. Claims 12-30 and 47-67 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant appreciates the Examiner's comments regarding the allowability of the noted claims. Applicant has provided herein clarifying remarks regarding Claims 1-73, and has added new Claims 74 and 75, leaving Claims 1-75 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §103(a) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

Rejections Under 35 U.S.C. §103(a)

Claims 1-11, 35-46 and 72-73 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cho (U.S. Patent No. 6,795,118 B1 hereinafter Cho) in view of Imaino et al (U.S. Patent No. 5,847,823).

Claims 31-34 and 68-71 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cho and Imaino et al. as applied to claim 1 above, and further in view of Lawrence (U.S. Patent No. 6,219,443 B1 hereinafter Lawrence).

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that the obviousness rejection based on the References is improper as the References fail to teach or suggest each and every element of the instant invention *arranged in such a manner as to perform as the claimed invention performs*. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

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Additionally, Applicant respectfully submits that “To establish inherency, the extrinsic evidence ‘must make clear that the missing *descriptive matter is necessarily present* in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances *is not sufficient.*” (emphasis added) MPEP §2112 citing *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art.” MPEP §2112 citing *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

Applicant also respectfully submits that obviousness cannot be supported by a proposed modification that would *render the prior art invention being modified unsatisfactory for its intended purpose*. *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984); MPEP §2143.01.

Regarding Claims 1 and 36

I. The References Fail To Teach Or Suggest Each And Every Element Of The Claimed Invention Arranged So As To Perform As The Claimed Invention Performs

Applicant respectfully disagrees with the Examiner’s rejection for the following reason.

The Examiner remarks, inter alia, “Referring to Claim 1, Cho discloses an image sensor testing system, which tests pixels in one or more windows by comparing the pixels in the windows with a given pixel value to determine whether the pixels in the window are good or bad, column 2, lines 16-26.” (Paper 20060103, pages 2-3)

Applicant finds Cho to disclose that “... the given pixel value 110 is the value of the pixel to be tested. The given pixel, in general, may be any chosen pixel in an image array. The given pixel value may also be a processed value, such as an average value of selected pixels.” (Cho, col 2, lines 12-15). Applicant further finds Cho to disclose “A pixel array may contain one or more windows. The pixels in a window may be appropriately indexed to facilitate the selection of a pixel for streaming. Thus, the

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differentiating element 102 provides a sensitivity deviation measure of a given pixel within the pixel array or window." (Cho, col 2, lines 21-26)

In comparing Cho with the instant invention, Applicant finds Cho *to teach a pixel testing system that tests the value of a given pixel, or tests the average value of selected pixels, against a window of pixels,* and submits that Cho is absent the claimed:

"...establishing a cartography of the pixels forming an image delivered by the sensor which indicates the locations of bad pixels;

controlling whether a part of the cartography that may contain the window has a set of bad pixels incompatible with the maximum limit..." (Claim 1); and

"...means for loading a cartography of pixels forming an image delivered by the sensor, which indicates the locations of the bad pixels;

...

means for calculation applying the calculation parameters on the cartography in order to determine whether a part of the cartography that may contain the window has a set of bad pixels incompatible with the maximum limit..." (Claim 36).

Since the Examiner does not look beyond Cho for a teaching of the aforementioned limitations present in independent Claims 1 and 36, Applicant presumes that the Examiner alleges that Cho teaches these limitations. However, the Examiner has not stated with specificity where in Cho such limitations may be found, and Applicant submits that the secondary references fail to cure the deficiency of Cho. Absent a teaching of each and every element arranged so as to perform as the claimed invention performs, a prima facie case of obviousness cannot be established.

In view of the remarks set forth above, Applicant submits that the References are absent disclosure of each and every element arranged in such a manner as to perform as the claimed invention performs. Accordingly, the References cannot be used to establish a prima facie case of obviousness.

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II. The References Fail To Teach A Claimed Limitation Through Inherency As The Limitation Does Not Necessarily Flow From The Teachings Of The Applied Prior Art

In addition to the foregoing, Applicant respectfully disagrees with the Examiner's rejection for the following reason.

The Examiner acknowledges that "Cho does not teach the testing system using a sliding window..." and looks to Imaino to cure this deficiency, but acknowledges that Imaino does not explicitly disclose the motion of a sliding window. The Examiner then looks to Johnson (U.S. Patent No. 5,339,092, hereinafter Johnson) to cure this deficiency, alleging that "...how it [the sliding window] slides from one position to the next by one line at a time, ... are inherent characteristics of sliding window technique, and they can be evidenced in figure 6 of U.S. Patent No. 5,339,092." (emphasis added). The Examiner further notes that no motivation is provided for Johnson since Johnson is incorporated as an evidentiary reference. Paper 20060103, Pages 3 and 4.

At the outset, Applicant finds the Examiner to be applying Johnson for the purpose of showing inherency, and respectfully submits that for an inherency argument to stand, the Examiner must show that the limitation alleged to be inherent must *necessarily* flow from the teaching of the applied prior art.

Applicant finds Johnson to disclose "The sliding window is moved from *left to right on each line and from top to bottom in the same fashion as a typical raster display device.*" (emphasis added) (Johnson, col 8, lines 11-13) Applicant further finds Johnson to disclose "*In raster scan display devices, the electron beam traces across the screen in an orderly fashion most often from left to right, top to bottom.*" (emphasis added) (Johnson, col 11, lines 6-8).

Here, Applicant finds Johnson to teach a sliding window that moves in the same fashion as *a typical raster display device, from left to right, top to bottom.*

In applying the motion taught by Johnson to demonstrate enablement for Imaino, one necessarily ends up with a window that moves *in the same fashion as a typical raster display device.* In comparing the window of Imaino as enabled by Johnson, Applicant finds that the Johnson motion of "*left to right on each line and from top to*

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bottom” is the characteristic that *necessarily flows from Johnson to Imaino*, and that the claimed motion “...wherein the sliding window slides from a first position to a second position such that the second position frames the same number of lines as the first position, the number of lines being greater than one, and the second position frames all but one of the lines from the first position”, does not necessarily flow from Johnson to Imaino because *Johnson teaches only raster type motion*.

Accordingly, Applicant submits that the alleged enablement of Imaino by Johnson necessarily results in a raster type motion that is not necessarily present in the claimed invention, and that Johnson fails to teach the claimed motion that necessarily must flow from Johnson in order for an inherency argument to stand. Accordingly, Applicant submits that the alleged inherent characteristic does not necessarily flow from the teachings of the applied prior art, and as such, the combination of Imaino and Cho, as modified by Johnson, fails to meet the requirements of inherency, and fails to teach or suggest each and every element of the instant invention arranged in such a manner as to perform as the claimed invention performs, and therefore cannot be used to properly establish a prima facie case of obviousness.

III. The References Fails To Establish A Prima Facie Case Of Obviousness As Obviousness Cannot Be Supported By A Proposed Modification That Would Render The Prior Art Invention Being Modified Unsatisfactory For Its Intended Purpose

In addition to all of the foregoing, Applicant respectfully disagrees with the Examiner's rejection for the following reason.

The Examiner alleges that “it would have been obvious to a person of ordinary skill in the art to use sliding window technique taught by Imaino in Cho's system.” (Paper 20060103, page 3), and that Cho discloses a method “...which tests pixels in one or more windows by comparing the pixels in the windows with a given pixel value...” (Paper 20060103, pages 2 and 3).

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In comparing the combination of Cho and Imaino with the instant invention, Applicant finds Cho to disclose "a demand for faster and more reliable testing of pixel arrays..." (Cho, col 1, lines 12-13), and "...a quick and easy method of testing the solid-state image sensor devices." (Cho, col 1, lines 66-67). With this purpose of Cho in mind, Applicant submits that a modification of Cho by Imaino to arrive at the claimed invention would result in Cho being unsatisfactory for its intended purpose as such a modification would slow down the testing of Cho, which is entirely contrary to the purpose of Cho.

For example, if a four-column, two-row array has a bad pixel "X" in the (2,1) location (c=2, r=1) (c denotes column, r denotes row) as depicted in Figure 1 below, a 2x2 sliding window that moves from left to right in accordance with Cho would in a first window position include the four pixels on the left, and in a second window position include the four pixels on the right, as shown in Figure 2 below. Here, the first window position would detect the bad pixel "X" and the second window position would not, thereby quickly determining the window location of the bad pixel "X". However, if Cho were modified by Imaino, as alleged by the Examiner, to arrive at the claimed invention (sliding the window one line at a time left to right), the result would be a first window position that includes the four pixels on the left, a second window position that includes the middle four pixels, and a third window position that includes the four pixels on the right, as illustrated in Figure 3 below. Here, both the first and second windows would detect the bad pixel "X", thereby slowing down the process of determining the window location of the bad pixel "X" (the bad pixel "X" now showing up in two window locations instead of just one), which is entirely contrary to the purpose of Cho.

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Figure-1 O X O O
 O O O O

Figure-2

O	X
O	O

 O O O X

O	O
O	O

Figure-3

O	X
O	O

 O O O

X	O
O	O

 O O X

O	O
O	O

In view of the foregoing, Applicant submits that incorporation of a sliding window, such as described by Imaino and modified by Johnson, would therefore render the inspection method of Cho unsatisfactory for its intended purpose (incorporation of sliding window would increase the number of detection steps, comparisons, error counts, and, therefore, inspection time and complexity).

Accordingly, Applicant submits that Imaino as modified by Johnson is absent any teaching, suggestion, or motivation to modify Cho for the purpose of arriving at the claimed invention, while maintaining Cho to be satisfactory for its intended purpose. As such, Applicant submits that absent a motivation to combine the references as alleged by the Examiner, a prima facie case of obviousness cannot be established.

Regarding Claims 2-11, 31-46, and 68-73

Dependent claims inherit the limitations of the respective parent claim. In view of the foregoing remarks, Applicant respectfully submits that Claims 2-11, 31-46, and 68-73 are directed to allowable subject matter and requests reconsideration thereof.

In view of the foregoing, Applicant submits that the References fail to teach or suggest each and every element of the claimed invention arranged to perform as the claimed invention performs and are therefore wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do what the patent Applicant has done as such a combination would render the prior art being modified

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unsatisfactory for its intended purpose, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §103(a), which Applicant considers to be traversed.

Regarding New Claims 74 and 75

Applicant has added new Claims 74 and 75, which depend from Claim 1, to now claim disclosed but previously unclaimed subject matter. No new matter has been added as antecedent support may be found in the application as originally filed, such as at Paragraphs [0009], [0069], [0071], [0082] and [0094], and in the originally filed claims, for example.

In view of the remarks set forth above regarding the allowability of Claim 1, Applicant submits that new Claims 74 and 75 are directed to allowable subject matter and respectfully requests entry and notice of allowance thereof.

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The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 50-2513.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

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